

JIACHENG LIANG

Curriculum Vitae

CONTACT

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Department of Mathematics, M5021
College of Science, Southern University of Science and Technology
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Shenzhen, Guangdong, China

RESEARCH INTERESTS

The orientation theory from Thom spectra, higher algebra, reformulations of chromatic homotopy theory by formal (spectral) algebraic geometry, spectral moduli problems, and various intersections between homotopy theory and algebraic geometry.

🎓 EDUCATION

Southern University of Science and Technology, Shenzhen, China 2022 – 2024(expected)

Master in Mathematics, expected June 2024

Advisor: Yifei Zhu

Sichuan University, Chengdu, Sichuan, China 2018 – 2022

B.S. in Physics

SHORT-TERM VISITS

Southern University of Science and Technology, Shenzhen, China 2021.11 – 2022.5

Visiting student

Advisor: Yifei Zhu

SELECTED TALKS

The σ -orientation and its AHR E_∞ -refinement $Mstring \rightarrow tmf$ August 17, 2023

IWoAT Summer School 2023: Operads, spectra, and multiplicative structures

BIMSA, Beijing, China

Thom spectra, infinite loop spaces, generalized cocycles, and the σ -orientation May 23, 2023

Graduate Topology Seminar at SUSTech

Sites, Sheaves, Formal Groups and Stacks December 06, 2022

Graduate Topology Seminar at SUSTech

Elliptic curves and Abelian varieties May 30, 2022

Undergraduate topology seminar, Sichuan University

Monads, E_∞ -spectra and model categories December 01, 2021

Graduate Topology Seminar at SUSTech

The Stable homotopy theory and EKMM framework November 18, 2021

Graduate Topology Seminar at SUSTech

Bousfield Localization and $K(n)$ -local stable homotopy theory March 22, 2021

Undergraduate topology seminar, Sichuan University

Landweber exact theorem and Lubin-Tate spectra Undergraduate topology seminar, Sichuan University	November 02, 2020
Quillen's theorem: complex cobordism and formal groups Undergraduate topology seminar, Sichuan University	September 30, 2020
MO is a graded E-M spectrum by calculating Steenrod operations Undergraduate topology seminar, Sichuan University	June 21, 2020
Characteristic classes from viewpoint of algebraic topology Undergraduate topology seminar, Sichuan University	March 13, 2020
Brown representability theorem and generalized cohomology theories Undergraduate topology seminar, Sichuan University	December 15, 2019
Obstruction theory in algebraic topology Undergraduate topology seminar, Sichuan University	September 08, 2019
Serre spectral sequence and homotopy groups of spheres Undergraduate topology seminar, Sichuan University	June 25, 2019
A proof of Non-embeddability from Klein bottle into \mathbf{R}^3 Undergraduate topology seminar, Sichuan University	May 8, 2019

ORGANIZATION

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| • Graduate Topology Seminar at SUSTech | 2021-present |
| • Undergraduate topology seminar at Sichuan University | 2019-2022 |

TEACHING

- Teaching assistant for MA201b(Ordinary Differential Equation), Spring 2023.
- Grader for MAT8021, Spring 2023 (Algebraic topology).

MISCELLANEOUS

- **Blog** about algebraic topology: www.zhihu.com/people/liang-jia-cheng-60-11
- Placed third in *Table Tennis Freshman Competition 2022* at department of mathematics, SUSTech

REFERENCES

- **Guozhen Wang**, *Fudan University*
- **Yifei Zhu** (advisor), *Southern University of Science and Technology*
- **Zhen Huan**, *Huazhong University of Science and Technology*